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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,837	01/13/2004	Paul H. Wierenga	AJGC121761	1417
26389	7590	01/28/2008		
CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC			EXAMINER	
1420 FIFTH AVENUE			NGUYEN, DINH Q	
SUITE 2800				
SEATTLE, WA 98101-2347			ART UNIT	PAPER NUMBER
			3752	
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			01/28/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/756,837

Applicant(s)

WIERENGA ET AL.

Examiner

Dinh Q. Nguyen

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25, 40, 44-48 and 52-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25, 40, 44-48 and 52-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zakhmatov (WO 94/06515) in view of Ruckdeschel et al.

Zakhmatov discloses a fire extinguisher comprising: a tank 7a, a gas generator breech 7b/13/14/15 with a hermetically sealed gas generator cartridge 7b within the gas generator breech. Zakhmatov does not disclose the perforated tube containing the gas generating propellant. However, Ruckdeschel et al. discloses a gas generator having a perforated tube 22 containing the gas generating propellant 18 (see figure 1). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Zakhmatov with a perforated tube that containing the gas generating propellant as suggested by Ruckdeschel et al. Doing so would provide a way for filtering out the residues in the gas generating material. Furthermore, because (a) the Zakhmatov reference and the Ruckdeschel et al. reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Ruckdeschel et al. and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense. *KSR, International Co. v. Teleflex Inc.*, 550 U.S. (2007).

3. Claims 1, 2, 14-20, 40, 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholz in view of Ruckdeschel et al.

Scholz discloses a fire extinguisher comprising: a tank 1, a gas generator breech 11 with a hermetically sealed gas generator cartridge 5 within the gas generator breech 11 (see figures 1 and 2). Scholz does not disclose the perforated tube containing the gas generating propellant. However, Ruckdeschel et al. discloses a gas generator having a perforated tube 22 containing the gas generating propellant 18 (see figure 1). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Scholz with a perforated tube that containing the gas generating propellant as suggested by Ruckdeschel et al. Doing so would provide a way for filtering out the residues in the gas generating material. Furthermore, because (a) the Scholz reference and the Ruckdeschel et al. reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Ruckdeschel et al. and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense. *KSR, International Co. v. Teleflex Inc., 550 U.S. (2007)*.

4. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zakhmatov (WO 94/06515) in view of Ruckdeschel et al. as applied to claims 1 and 2 above, or Scholz in view of Ruckdeschel et al. as applied to claims 1, 2, 14-20, 40, 52-54 above, and further in view of Stewart et al.

Zakhmatov in view of Ruckdeschel et al. or Scholz in view of Ruckdeschel et al. teach all the limitations of the claims except for a hydrofluorocarbon fire suppressant.

However, Stewart et al. discloses a fire extinguisher with a hydrofluorocarbon fire-extinguishing composition (column 3, lines 54). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Zakhmatov in view of Ruckdeschel et al. or the device Scholz in view of Ruckdeschel et al. with a hydrofluorocarbon fire suppressant as suggested by Stewart. Doing so would provide an effective way to fight fire.

With respect to claims 4-6, to have 1,1,1,2,3,3,3-heptafluoropropane, water, or water with potassium acetate and surfactant as a fire suppressant would have been an obvious matter of design choice to a person of ordinary skill in the art, since Applicant has not disclosed that 1,1,1,2,3,3,3-heptafluoropropane, or water, or water with potassium acetate and surfactant provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with hydrofluorocarbon or 1,1,1,2,3,3,3-heptafluoropropane, or water, or water with potassium acetate and surfactant because they both provide fire suppressant for fire fighting.

5. Claims 10-12, 21, 22, 24, 25, 44, 45, 47, 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zakhmatov (WO 94/06515) in view of Ruckdeschel et al. as applied to claims 1 and 2 above, or Scholz in view of Ruckdeschel et al. as applied to claims 1, 2, 14-20, 40, 52-54 above.

Zakhmatov in view of Ruckdeschel et al. or Scholz in view of Ruckdeschel et al. discloses all the limitations of the claims except for gas generator container being made of steel, food can, or soda pop can. At the time the invention was made, it would have

been an obvious matter of design choice to a person of ordinary skill in the art to provide the device of Zakhmatov in view of Ruckdeschel et al. or the device of Scholz in view of Ruckdeschel et al. with the gas generator housing being made of either steel, food can, or soda pop can, because Applicant has not disclosed that steel, food can, or soda pop can container provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either type of container materials because the materials serve effectively as container for the gas generator. Therefore, it would have been an obvious matter of design choice to modify the device of Zakhmatov in view of Ruckdeschel et al. or the device of Scholz in view of Ruckdeschel et al. to obtain the invention as specified in claims 10-12, 24, 25, 44, 45, 47, and 48.

With respect to claims 21, it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide the device of Zakhmatov or Scholz with the burst pressure for the gas generator in the range of 500-4000 psig, because Applicant has not disclosed that to have a bursting range of 500-4000 psig provides an advantage, is used for a particular purpose, or solves a stated problem.

With respect to claims 22, it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide the device of Zakhmatov in view of Ruckdeschel et al. or the device Scholz in view of Ruckdeschel et al. with the gas generator that does not have a burst shim or a release poppet,

because Applicant has not disclosed that the gas generator without a burst shim or a release poppet provides an advantage, is used for a particular purpose, or solves a stated problem.

6. Claims 7-9, 13, 23, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zakhmatov (WO 94/06515) in view of Ruckdeschel et al. as applied to claims 1 and 2 above, or Scholz in view of Ruckdeschel et al. as applied to claims 1, 2, 14-20, 40, 52-54, and further in view of Galbraith et al.

Zakhmatov in view of Ruckdeschel et al. or Scholz in view of Ruckdeschel et al. teaches all the limitations of the claims except for an aluminum gas generator cartridge. However, Galbraith discloses an aluminum gas generator cartridge 36. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Zakhmatov in view of Ruckdeschel et al. or the device of Scholz in view of Ruckdeschel et al. with an aluminum gas generator cartridge as suggested by Galbraith. Doing so would provide an effective fire extinguisher.

### ***Response to Arguments***

7. Applicant's arguments filed October 26, 2007 have been fully considered but they are not persuasive.

8. Applicant's arguments with respect to claims 1-25, 40, 44-48, and 52-54 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh Q. Nguyen whose telephone number is 571-272-4907. The examiner can normally be reached on Monday-Thursday 6:00-4:30.

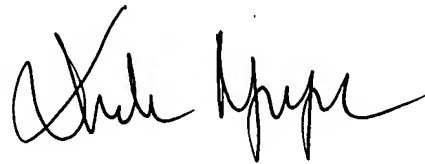
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Dinh Q. Nguyen  
Primary Examiner  
Art Unit 3752

dqn